IN THE CLAIMS:

Please amend claims 4-7, and add a new claim 8 as follows:

1. (Withdrawn) A microarray chip comprising a plurality of spots arranged in a predetermined positional relationship, wherein some of the plurality of spots provide index information for specifying the microarray chip.

2. (Withdrawn) A microarray chip comprising a plurality of element spots arranged in a predetermined positional relationship, wherein spots which provide index information for specifying the microarray chip are positioned along with the element spots.

3. (Withdrawn) A microarray chip according to claim 1 or 2, wherein the spots which provide index information include spots containing a detective colorant and spots free of the detective colorant as to give index information by the presence or absence of the detective colorant.

4. (Currently Amended) A method for indexing a microarray chip ~~comprising~~ with a plurality of spots arranged in a predetermined positional relationship thereon, comprising:

selecting ~~wherein~~ some of the plurality of spots ~~are used for maintaining index information~~ as index spots;

spotting at least one biological element onto one of remaining spots as a non-index spot;

indexing the microarray chip spotted with said on-chip-element by selectively providing at least one kind of detective colorant onto the index spots based upon index information which includes a type of said on-chip-element and a corresponding location of said non-index spot on the chip; and

automatically identifying the microarray chip by detecting said detective colorant provided on said index spots.

5. (Currently Amended) A method for indexing a microarray chip ~~comprising~~ with a plurality of spots arranged in a predetermined positional relationship thereon, comprising:

selecting ~~wherein~~ some of the plurality of spots ~~are used~~ as index spots; ~~for~~

~~maintaining index information~~

spotting at least one biological element onto one of remaining spots as a non-index spot;

indexing the microarray chip spotted with said on-chip-element by selectively providing at least one kind of detective colorant onto the index spots based upon index information which includes a type of said on-chip-element and a corresponding location of said non-index spot on the chip; and

reproducing the index information ~~is reproduced~~ by detecting the presence or absence of [[a]] said detective colorant provided on the index spots thereby automatically identifying the microarray chip.

6. (Currently Amended) A method of indexing a microarray chip according to claim 5, wherein ~~information detected at~~ the index spots ~~is realigned into~~ are arranged in a two-dimensional matrix including some of the index spots designated as parity spots and provided with said detective colorant based upon a parity algorithm running by row and by column of the matrix, and

upon reproducing the index information, ~~and part of~~ the parity spots are checked for errors ~~information of the realigned two-dimensional matrix is used as parity information~~.

7. (Currently Amended) A method for indexing a microarray chip according to claim 4, further comprising the steps of:

constructing a database for storing an element information record, a microarray chip master record, and an on-chip-element information record;

recording information of [[a]] said on-chip-element on the element information record ~~where~~ with an element index ~~is used as a master index~~;

recording information of the microarray chip on the microarray chip master record ~~where the~~ with a microarray index ~~is used as a master record~~;

recording, on the on-chip-element information record, information of the microarray index, [[a]] said corresponding location of [[a]] said non-index spot on the microarray chip, said element index of [[the]] said on-chip-element spotted on [[that]] said corresponding location, and ~~the~~ information of experiment conducted and

measurement taken in said non-index ~~of the~~ spot;

linking the microarray chip with the microarray chip master record as well as the on-chip-element information record via the microarray index ~~maintained by~~ coded in the index spots~~, as well as to the on-chip-element information record~~; and

linking the on-chip-element information record with the element information record via the element index.

8. (New) A method of indexing a microarray chip according to claim 4, wherein some of the index spots are designated as parity spots and provided with said detective colorant based upon a parity algorithm, and

upon reproducing the index information, the parity spots are checked for errors.